

Amendments to the Specification

Please replace paragraph [0018] with the following rewritten paragraph:

[0018] It has proven advantageous in particular to design the light transmitters in such a way that each light transmitter emits a light transmitter-individualized light signal, so that it is particularly simple for the analyzing unit to analyze which light path between the light transmitter transmitters and light receiver is blocked, and thus which position the passenger has assumed. In this connection it has proven advantageous in particular to achieve light transmitter individualization by differentiating the color, i.e., frequency, modulation, and/or ~~break-make~~ pause length-to-pulse length ratio of the light of the individual transmitters, and/or by individual coding. This light transmitter-individualized design of the light signals makes it possible to detect the individual light signals in a simple way and thus reliably, and to come to the conclusion which light signals/light paths are blocked and which reach the light receivers and thus the analyzing unit freely. Based on all light signals received and based on the blocked light signals, the analyzing unit, aware of the position of the different light transmitters and light receivers and the associated light signals, may come to a reliable conclusion about the body position or the posture of the passenger.

Please replace paragraph [0032] with the following rewritten paragraph:

[0032] The present invention is described in the following based on exemplary embodiments, with reference to the drawings. The present invention is not limited to these embodiments.

- Figure 1 shows a simplified illustration of a device for detecting the body position or posture,
- Figure 2 shows the configuration of a seat having a device for detecting the body position or posture,
- Figure 3 shows the configuration of a light receiver,
- Figure 4 shows another device for detecting the body position or posture,
- Figure 5 shows the configuration of a light transmitter, and
- Figure 6 shows a vehicle having two devices for detecting the body position or posture,

Figure 7 shows the configuration of a seat having another device for detecting the body position or posture.

Figure 8 shows the configuration of a seat having another device for detecting the body position or posture.

Figure 9 shows another device for detecting the body position or posture.

Figure 10 shows another device for detecting the body position or posture, and

Figure 11 shows the configuration of another light receiver.

Please replace paragraph [0033] with the following rewritten paragraph:

[0033] Figure 1 shows a detail of a vehicle having a driver's seat. Driver's seat 1 is composed of a seat surface, a back rest 2 and a head restraint 3. A light transmitter 4 is situated in head restraint 3 which emits light downward in the direction of back rest 2 or the seat surface of driver's seat 1. An optical element 11 associated with light transmitter 4 aligns emitted light signals.

Please replace paragraph [0034] with the following rewritten paragraph:

[0034] A plurality of light receivers 5, staggered by height, is situated in back rest 2. For the purpose of simplification, only three light receivers 5 are illustrated in Figure 1. Light receivers 5 are mounted on the surface of back rest 2. They are connected to an analyzing unit 7 via optical waveguides 6. Analyzing unit 7 contains photodiodes which convert light, received by light receivers 5 and relayed to analyzing unit 7 via optical waveguides 6, into electrical signals. The converted electrical signals are checked whether light having adequate light intensity does or does not arrive at the individual light receivers 5. If the light path to the lowest light receiver 5 is blocked while light receiver 5, situated directly above it, receives a light signal having sufficient light intensity, then the conclusion may be drawn that the light path between light transmitter 4 in ~~back rest~~ head restraint 3 to the lowest light receiver 5 is blocked, while the light path to light receiver 5, situated directly above it, is open. From this information the conclusion may be drawn that the passenger is leaning heavily forward. The

more light receivers 5 do not receive a light signal or do not receive an adequate light signal, the more is the passenger leaning against back rest 2. The body position or posture of the passenger may be detected in a simple and quite reliable manner using this information. Analyzing unit 7 is connected to airbag deployment unit 13. Based on this information about the body position, in particular about the body leaning in the direction of the steering wheel, the optimal deployment time or the optimal deployment speed of an air bag may be determined, thereby limiting the effects of an accident.

Please replace paragraph [0035] with the following rewritten paragraph:

[0035] Figure 2 shows a driver's seat 1 viewed from the front. The seat is composed of seat surface 1a, back rest 2, and head restraint 3. Light transmitter 4 is situated in head restraint 3, the light transmitter, corresponding to Figure 1, emitting light downward in the direction of light receivers 5 situated in back rest 2. Light receivers 5 are mounted on back rest 2 in two parallel rows ~~staggered by height~~ at different heights. They show an essentially uniform distance within the particular row. Light transmitter 4 irradiates all ten light receivers evenly. By positioning light receivers 5 in two rows, it is made possible to detect a lateral change in position of the passenger and to take this change into account with regard to the deployment of an air bag, in particular a side air bag. The uniform distance of light receivers 5 in the rows makes a visually appealing and reliable implementation of the detection of the body position or posture possible. In particular, a differentiated body inclination and thereby a body position with little body inclination may be detected just as well as a strong body inclination at which more or less light receivers do receive or do not receive a sufficient light signal depending on the body inclination.

Before paragraph [0036], please add new paragraph [0035.1] as follows:

--[0035.1] Referring to Fig. 7, in an embodiment, light receivers 5 are spaced closer together in lower area 12 of back rest 2 than in upper area 14 of the back rest.--.

Please replace paragraph [0037] with the following rewritten paragraph:

[0037] Figure 4 shows another exemplary embodiment of the present invention. A device according to the present invention is situated in driver's seat 1 having back rest 2 and head restraint 3. A light receiver 5 is situated in head restraint 3; the receiving area of the light receiver is directed downward in the direction of driver's seat 1, in particular in the direction

of back rest 2. A plurality of light transmitters 4 is situated in the receiving area. These light transmitters 4 are mounted on the front of back rest 2, staggered by height. Light transmitters 4, independently of one another, emit light signals which may be picked up by light receiver 5. Each light transmitter 4 is provided with an its own light source 9 via its own optical waveguide 6. Light sources 9 are each formed by light-emitting diodes. The light-emitting diodes are each provided with a characteristic modulation, so that the light signal emitted from each individual light transmitter 4 has its own characteristic modulation. Each characteristic light signal is picked up by light receiver 5 and is analyzed by an analyzing unit 7, assigned to light receiver 5, to determine which light transmitter is emitting a receivable light signal. Based on this analysis, it may be determined which light paths are blocked and which are open. Based on the light paths blocked, a conclusion may be drawn regarding the body position, i.e., the position of the body blocking the light paths. Analyzing unit 7 is situated in the immediate proximity of the light receiver in ~~back rest~~ head restraint 3. This makes possible a compact unit composed of the light receiver and analyzing unit 7 which are accommodated in the head restraint as a functional unit. An easy exchange, replacement, and repair of head restraint 3 including analyzing unit 7 and light receiver 5 is thus possible.

Before paragraph [0038], please add new paragraphs [0037.1], [0037.2] and [0037.3] as follows:

--[0037.1] Referring to Fig. 8, in an embodiment, plurality of light transmitters 4 are spaced closer together in lower area 12 of back rest 2 than in upper area 14 of the back rest.

[0037.2] Referring to Fig. 9, in an embodiment, light receiver 5 is situated in roof liner 15.

[0037.3] Referring to Fig. 10, in an embodiment, light transmitter 4 is situated in roof liner 15, with plurality of light receivers 5 situated in back rest 2.--.

Please replace paragraph [0038] with the following rewritten paragraph:

[0038] An exemplary structure of a light receiver 5, corresponding to the structure illustrated in Figure 3, is rendered in Figure 5. An optical element [[8]] in the form of a convex lens 8a is assigned to light receiver 5. The light picked up and concentrated by the convex lens is supplied to a photodiode which converts the light signals into electrical signals, and the converted electrical signals are subsequently transmitted to analyzing unit 7 via electric lines.

The illustrated light receiver 5 has a compact construction which may be advantageously integrated into a head restraint 3 and may perform its task there without affecting the function of the head restraint. In order to safely ensure this, convex lens 8a is made of a soft material or is enclosed in a soft material so that there is no danger of an injury through an impact of the head on the light receiver.

Before paragraph [0039], please add new paragraph [0038.1] as follows:

--[0038.1] Referring to Fig. 11, in an embodiment, an optical element in the form of an aperture 8b is assigned to light receiver 5.--

Please replace paragraph [0040] with the following rewritten paragraph:

[0040] A passenger having three different body positions or postures is depicted on the driver's seat. The solid-line drawing shows the driver in a correct body position or posture and thus in a correct sitting position. The light paths between the light ~~transmitters~~ receivers in the back rest of the seat and the light ~~receiver~~ transmitter in the head restraint of the seat are all blocked. The light ~~receiver~~ receivers do not receive light due to this blockage. The analyzing unit detects this and interprets this as a correct sitting position which would cause a standard deployment of the air bag system situated in the steering wheel of the vehicle.